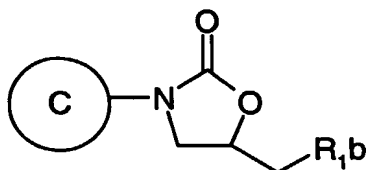


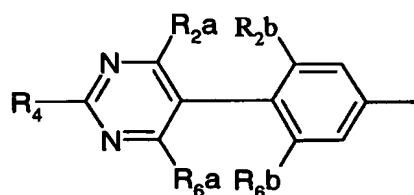
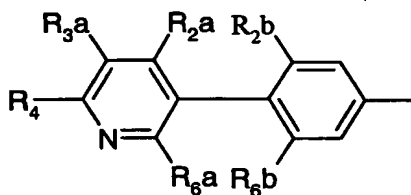
**Claims**

1. A compound of the formula (I), or a pharmaceutically-acceptable salt, or an in-vivo-hydrolysable ester thereof,



(I)

wherein C is selected from D and E,

**D****E**

wherein in D and E the phenyl ring is attached to the oxazolidinone in (I);

$R_{1b}$  is  $-NR_{25}C(=W)R_{24}$  ;

wherein W is O or S;

- 15  $R_{24}$  is hydrogen, amino, (2-6C)alkyl (optionally substituted by 1, 2 or 3 substituents independently selected from methyl, chloro, bromo, fluoro, methoxy, methylthio, azido and cyano), methyl (substituted by 1, 2 or 3 substituents independently selected from methyl, chloro, bromo, fluoro, methoxy, methylthio, hydroxy, benzyloxy, ethynyl, (1-4C)alkoxycarbonyl, azido and cyano), 5-halo-2-thienyl,  $-NHR_{26}$ ,  $-N(R_{26})(R_{27})$ ,  $-OR_{26}$  or
- 20  $-SR_{26}$ , (2-4C)alkenyl,  $-(1-8C)$ alkylaryl, per-halo(1-8C)alkyl,  $-(CH_2)_p(3-6C)$ cycloalkyl or  $-(CH_2)_p(3-6C)$ cycloalkenyl wherein p is 0, 1 or 2;
- $R_{25}$  is hydrogen, (3-6C)cycloalkyl, phenyloxycarbonyl, tert-butoxycarbonyl, fluorenyloxycarbonyl, benzyloxycarbonyl, (1-6C)alkyl (optionally substituted by cyano or (1-4C)alkoxycarbonyl),  $-CO_2R_{28}$ ,  $-C(=O)R_{28}$ ,  $-C(=O)SR_{28}$ ,  $-C(=S)R_{29}$ ,  $P(O)(OR_{29})(OR_{30})$  and
- 25  $-SO_2R_{31}$ , wherein  $R_{28}$ ,  $R_{29}$ ,  $R_{30}$  and  $R_{31}$  are as defined hereinbelow;
- $R_{28}$  is hydrogen, (3-6C)cycloalkyl, phenyl, benzyl, (1-5C)alkanoyl, (1-6C)alkyl (optionally substituted by substituents independently selected from (1-5C)alkoxycarbonyl, hydroxy,

- cyano, up to 3 halogen atoms and  $-NR_{15}R_{16}$  (wherein  $R_{15}$  and  $R_{16}$  are independently selected from hydrogen, phenyl (optionally substituted with one or more substituents selected from halogen, (1-4C)alkyl and (1-4C)alkyl substituted with one, two, three or more halogen atoms) and (1-4C)alkyl (optionally substituted with one, two, three or more halogen atoms), or for
- 5 any  $N(R_{15})(R_{16})$  group,  $R_{15}$  and  $R_{16}$  may additionally be taken together with the nitrogen atom to which they are attached to form a pyrrolidiny, piperidiny or morpholinyl ring));
- $R_{29}$  and  $R_{30}$  are independently selected from hydrogen and (1-4C)alkyl;
- $R_{31}$  is (1-4C)alkyl or phenyl;
- $R_{26}$  and  $R_{27}$  are independently selected from hydrogen, phenyl (optionally substituted with one
- 10 or more substituents selected from halogen, (1-4C)alkyl and (1-4C)alkyl substituted with one, two, three or more halogen atoms) and (1-4C)alkyl (optionally substituted with one, two, three or more halogen atoms), or for any  $N(R_{26})(R_{27})$  group,  $R_{26}$  and  $R_{27}$  may additionally be taken together with the nitrogen atom to which they are attached to form an unsubstituted or substituted pyrrolidiny, piperidiny or morpholinyl ring, which ring may be optionally
- 15 substituted by a group selected from (1-4C)alkyl, (3-6C)cycloalkyl, (1-4C)alkanoyl,  $-COO(1-4C)alkyl$ ,  $-S(O)_n(1-4C)alkyl$  (wherein  $n = 1$  or  $2$ ),  $-COOAR1$ ,  $-CS(1-4C)alkyl$  and  $-C(=S)O(1-4C)alkyl$ ;
- $R_{2a}$  and  $R_{6a}$  are independently selected from H,  $CF_3$ , OMe, SMe, Me and Et;
- $R_{2b}$  and  $R_{6b}$  are independently selected from H, F, Cl,  $CF_3$ , OMe, SMe, Me and Et;
- 20  $R_{3a}$  is selected from H, (1-4C)alkyl, cyano, Br, F, Cl, OH, (1-4C)alkoxy,  $-S(O)_n(1-4C)alkyl$  (wherein  $n = 0, 1, \text{ or } 2$ ), amino, (1-4C)alkylcarbonylamino, nitro,  $-CHO$ ,  $-CO(1-4C)alkyl$ ,  $-CONH_2$  and  $-CONH(1-4C)alkyl$ ;
- $R_4$  is selected from  $R_{4a}$  and  $R_{4b}$  wherein
- $R_{4a}$  is selected from azido,  $-NR_7R_8$ ,  $OR_{10}$ , (1-4C)alkyl, (1-4C)alkoxy, (3-6C)cycloalkyl,
- 25  $-(CH_2)_k-R_9$ ,  $AR1$ ,  $AR2$ , (1-4C)alkanoyl,  $-CS(1-4C)alkyl$ ,  $-C(=W)NR_vR_w$  [wherein W is O or S,  $R_v$  and  $R_w$  are independently H, or (1-4C)alkyl ],  $-(C=O)_l-R_6$ ,  $-COO(1-4C)alkyl$ ,  $-C=OAR1$ ,  $-C=OAR2$ ,  $-COOAR1$ ,  $S(O)_n(1-4C)alkyl$  (wherein  $n = 1$  or  $2$ ),  $-S(O)_pAR1$ ,  $-S(O)_pAR2$  and  $-C(=S)O(1-4C)alkyl$ ; wherein any (1-4C)alkyl chain may be optionally substituted by (1-4C)alkyl, cyano, hydroxy or halo;  $p = 0, 1$  or  $2$ ;
- 30  $R_{4b}$  is selected from HET-3;
- $R_6$  is selected from hydrogen, (1-4C)alkoxy, amino, (1-4C)alkylamino and hydroxy(1-4C)alkylamino;
- k is 1 or 2;

l is 1 or 2;

R<sub>7</sub> and R<sub>8</sub> are independently selected from H and (1-4C)alkyl, or wherein R<sub>7</sub> and R<sub>8</sub> taken together with the nitrogen to which they are attached can form a 5-7 membered ring optionally with an additional heteroatom selected from N, O, S(O)<sub>n</sub> (wherein n = 1 or 2) in place of 1 carbon atom of the so formed ring; wherein the ring may be optionally substituted by one or two groups independently selected from (1-4C)alkyl, (3-6C)cycloalkyl, (1-4C)alkanoyl, -COO(1-4C)alkyl, -S(O)<sub>n</sub>(1-4C)alkyl (wherein n = 1 or 2), AR1, AR2, , -C=OAR1, -C=OAR2, -COOAR1, -CS(1-4C)alkyl, -C(=S)O(1-4C)alkyl, -C(=W)NR<sub>v</sub>R<sub>w</sub> [wherein W is O or S, R<sub>v</sub> and R<sub>w</sub> are independently H, or (1-4C)alkyl], -S(O)<sub>p</sub>AR1 and -S(O)<sub>p</sub>AR2; wherein any (1-4C)alkyl, (3-6C)cycloalkyl or (1-4C)alkanoyl group may be optionally substituted (except on a carbon atom adjacent to a heteroatom) by one or two substituents selected from (1-4C)alkyl, cyano, hydroxy, halo, amino, (1-4C)alkylamino and di(1-4C)alkylamino; p = 0,1 or 2;

R<sub>9</sub> is independently selected from R<sub>9a</sub> to R<sub>9d</sub> below:

15 R<sub>9a</sub>: AR1, AR2, AR2a, AR2b, AR3, AR3a, AR3b, AR4, AR4a, CY1, CY2;

R<sub>9b</sub>: cyano, carboxy, (1-4C)alkoxycarbonyl, -C(=W)NR<sub>v</sub>R<sub>w</sub> [wherein W is O or S, R<sub>v</sub> and R<sub>w</sub> are independently H, or (1-4C)alkyl and wherein R<sub>v</sub> and R<sub>w</sub> taken together with the amide or thioamide nitrogen to which they are attached can form a 5-7 membered ring optionally with an additional heteroatom selected from N, O, S(O)<sub>n</sub> in place of 1 carbon atom of the so formed ring; wherein when said ring is a piperazine ring, the ring may be optionally substituted on the additional nitrogen by a group selected from (1-4C)alkyl, (3-6C)cycloalkyl, (1-4C)alkanoyl, -COO(1-4C)alkyl, -S(O)<sub>n</sub>(1-4C)alkyl (wherein n = 1 or 2), -COOAR1, -CS(1-4C)alkyl and -C(=S)O(1-4C)alkyl; wherein any alkyl, alkanoyl or cycloalkyl may itself optionally be substituted by cyano, hydroxy or halo)], ethenyl, 2-(1-4C)alkylethenyl, 2-cyanoethenyl, 2-cyano-2-((1-4C)alkyl)ethenyl, 2-nitroethenyl, 2-nitro-2-((1-4C)alkyl)ethenyl, 2-((1-4C)alkylaminocarbonyl)ethenyl, 2-((1-4C)alkoxycarbonyl)ethenyl, 2-(AR1)ethenyl, 2-(AR2)ethenyl, 2-(AR2a)ethenyl;

R<sub>9c</sub>: (1-6C)alkyl

{optionally substituted by one or more groups (including geminal disubstitution) each independently selected from hydroxy, (1-10C)alkoxy, (1-4C)alkoxy-(1-4C)alkoxy, (1-4C)alkoxy-(1-4C)alkoxy-(1-4C)alkoxy, (1-4C)alkylcarbonyl, phosphoryl [-O-P(O)(OH)<sub>2</sub>, and mono- and di-(1-4C)alkoxy derivatives thereof], phosphiryl [-O-P(OH)<sub>2</sub> and mono- and di-(1-4C)alkoxy derivatives thereof], and amino; and/or optionally substituted by one group

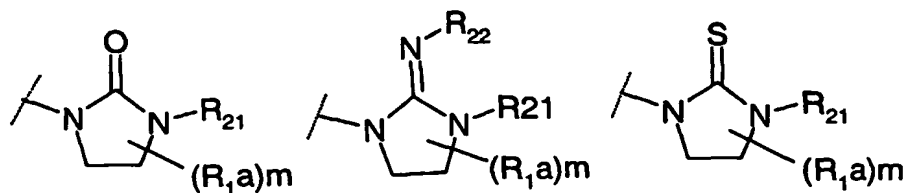
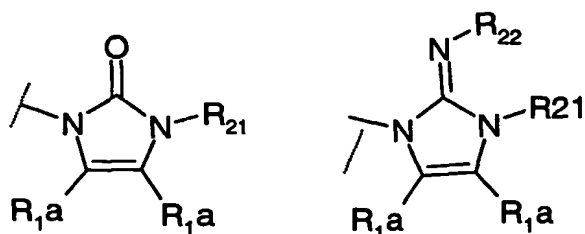
selected from carboxy, phosphonate [phosphono, -P(O)(OH)<sub>2</sub>, and mono- and di-(1-4C)alkoxy derivatives thereof], phosphinate [-P(OH)<sub>2</sub> and mono- and di-(1-4C)alkoxy derivatives thereof], cyano, halo, trifluoromethyl, (1-4C)alkoxycarbonyl, (1-4C)alkoxy-(1-4C)alkoxycarbonyl, (1-4C)alkoxy-(1-4C)alkoxy-(1-4C)alkoxycarbonyl, (1-4C)alkylamino, di((1-4C)alkyl)amino, (1-6C)alkanoylamino-, (1-4C)alkoxycarbonylamino-, N-(1-4C)alkyl-N-(1-6C)alkanoylamino-, -C(=W)NR<sub>v</sub>R<sub>w</sub> [wherein W is O or S, R<sub>v</sub> and R<sub>w</sub> are as hereinbefore defined], (=NOR<sub>v</sub>) wherein R<sub>v</sub> is as hereinbefore defined, (1-4C)alkylS(O)<sub>p</sub>NH, (1-4C)alkylS(O)<sub>p</sub>-((1-4C)alkyl)N-, fluoro(1-4C)alkylS(O)<sub>p</sub>NH-, fluoro(1-4C)alkylS(O)<sub>p</sub>-((1-4C)alkyl)N-, (1-4C)alkylS(O)<sub>q</sub>-, CY1, CY2, AR1, AR2, AR3, AR1-O-, AR2-O-, AR3-O-  
 10 , AR1-S(O)<sub>q</sub>-, AR2-S(O)<sub>q</sub>-, AR3-S(O)<sub>q</sub>-, AR1-NH-, AR2-NH-, AR3-NH- (p is 1 or 2 and q is 0, 1 or 2), and also AR2a, AR2b, AR3a and AR3b versions of AR2 and AR3 containing groups}; wherein any (1-4C)alkyl present in any substituent on R<sub>9c</sub> may itself be substituted by one or two groups independently selected from cyano, hydroxy, halo, amino, (1-4C)alkylamino and di(1-4C)alkylamino, provided that such a substituent is not on a carbon  
 15 adjacent to a heteroatom atom if present;

R<sub>9d</sub>: R<sub>14</sub>C(O)O(1-6C)alkyl- wherein R<sub>14</sub> is AR1, AR2, (1-4C)alkylamino, benzyloxy-(1-4C)alkyl or (1-10C)alkyl {optionally substituted as defined for (R<sub>9c</sub>)};

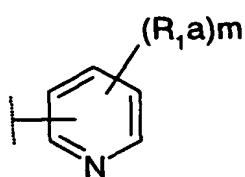
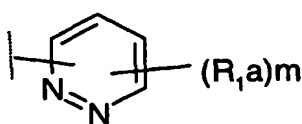
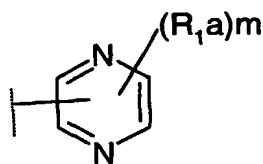
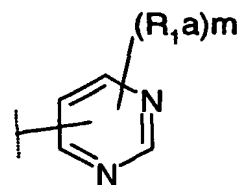
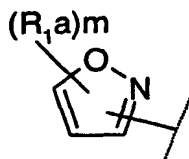
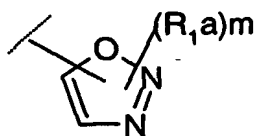
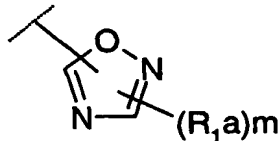
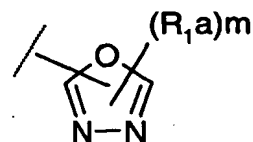
R<sub>10</sub> is selected from hydrogen, R<sub>9c</sub> (as hereinbefore defined), (1-4C)alkanoyl and (1-4C)alkylsulfonyl;

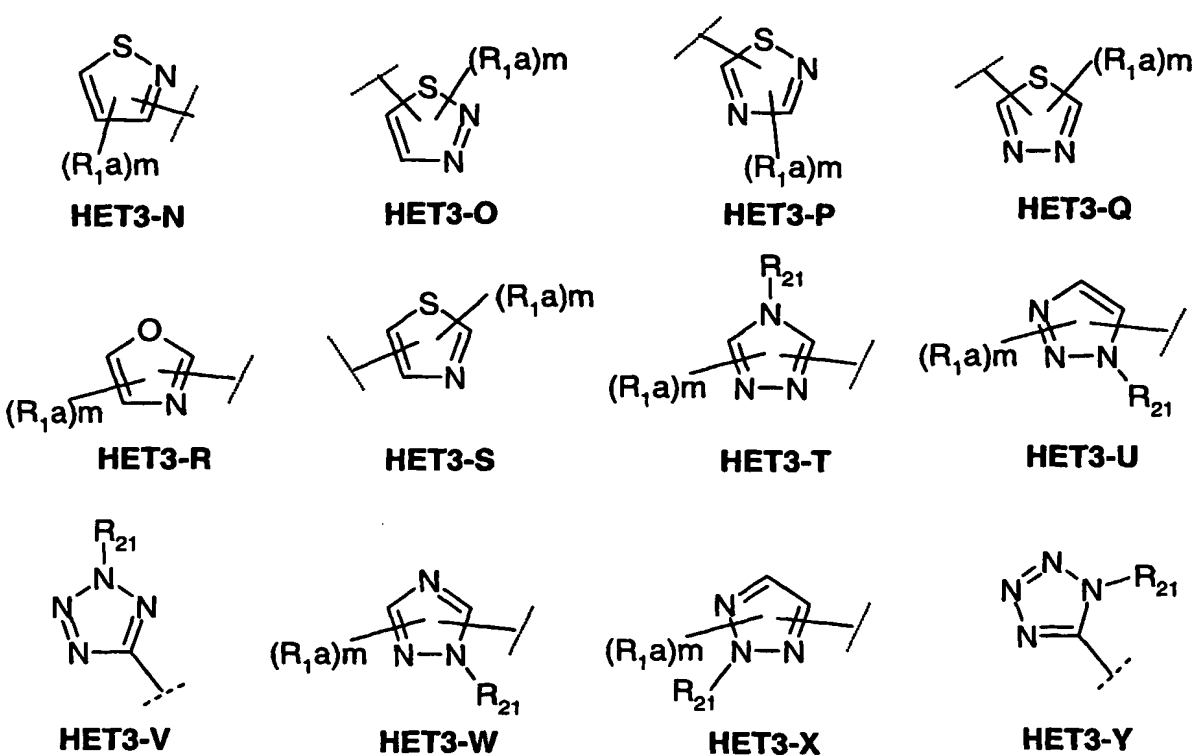
20 HET-3 is selected from:

a) a 5-membered heterocyclic ring containing at least one nitrogen and/or oxygen in which any carbon atom is a C=O, C=N, or C=S group, wherein said ring is of the formula HET3-A to HET3-E below:

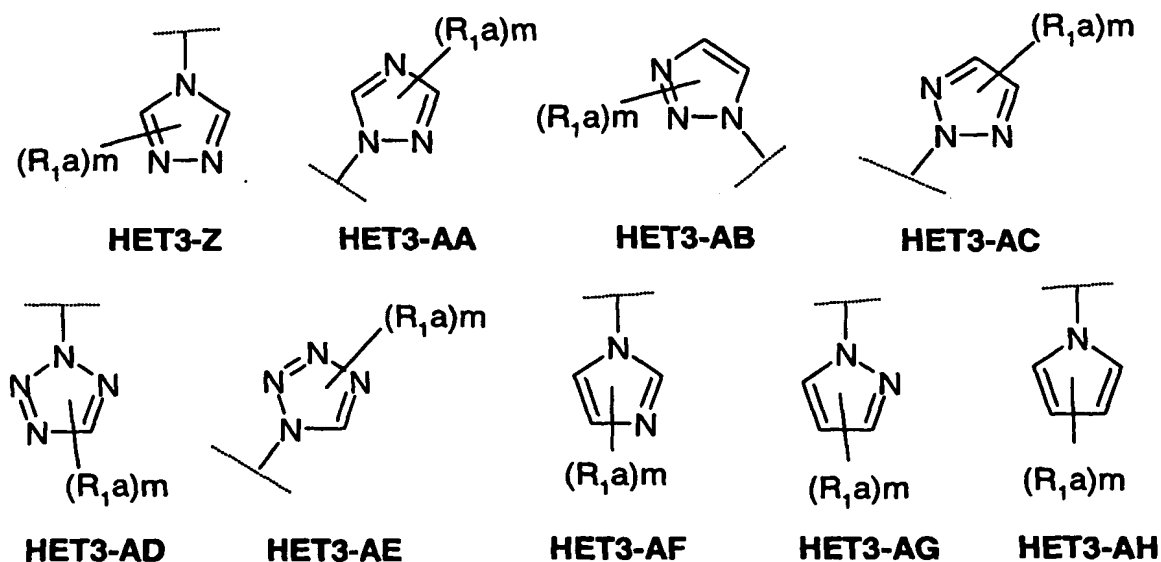
**HET3-A****HET3-B****HET3-C****HET3-D****HET3-E**

b) a carbon-linked 5- or 6-membered heteroaromatic ring containing 1, 2, 3, or 4 heteroatoms independently selected from N, O and S selected from HET3-F to HET3-Y below:

**HET3-F****HET3-G****HET3-H****HET3-I****HET3-J****HET3-K****HET3-L****HET3-M**



c) a nitrogen-linked 5- or 6-membered heteroaromatic ring containing 1, 2, 3, or 4 heteroatoms independently selected from N, O and S selected from HET3-Z to HET3-AH below:



5

wherein in HET-3, R<sub>1a</sub> is a substituent on carbon;

R<sub>1a</sub> is independently selected from R<sub>1a1</sub> to R<sub>1a5</sub> below:

R<sub>1a1</sub>: AR1, AR2, AR2a, AR2b, AR3, AR3a, AR3b, AR4, AR4a, CY1, CY2;

- R<sub>1a2</sub>: cyano, carboxy, (1-4C)alkoxycarbonyl, -C(=W)NR<sub>v</sub>R<sub>w</sub> [wherein W is O or S, R<sub>v</sub> and R<sub>w</sub> are independently H, or (1-4C)alkyl and wherein R<sub>v</sub> and R<sub>w</sub> taken together with the amide or thioamide nitrogen to which they are attached can form a 5-7 membered ring optionally with an additional heteroatom selected from N, O, S(O)<sub>n</sub> in place of 1 carbon atom of the so formed ring; wherein when said ring is a piperazine ring, the ring may be optionally substituted on the additional nitrogen by a group selected from (1-4C)alkyl, (3-6C)cycloalkyl, (1-4C)alkanoyl, -COO(1-4C)alkyl, -S(O)<sub>n</sub>(1-4C)alkyl (wherein n = 1 or 2), -COOAR<sub>1</sub>, -CS(1-4C)alkyl and -C(=S)O(1-4C)alkyl; wherein any (1-4C)alkyl, (1-4C)alkanoyl and (3-6C)cycloalkyl substituent may itself be substituted by cyano, hydroxy or halo, provided that, such a substituent is not on a carbon adjacent to a nitrogen atom of the piperazine ring], ethenyl, 2-(1-4C)alkylethenyl, 2-cyanoethenyl, 2-cyano-2-((1-4C)alkyl)ethenyl, 2-nitroethenyl, 2-nitro-2-((1-4C)alkyl)ethenyl, 2-((1-4C)alkylaminocarbonyl)ethenyl, 2-((1-4C)alkoxycarbonyl)ethenyl, 2-(AR<sub>1</sub>)ethenyl, 2-(AR<sub>2</sub>)ethenyl, 2-(AR<sub>2a</sub>)ethenyl;
- R<sub>1a3</sub>: (1-10C)alkyl
- { optionally substituted by one or more groups (including geminal disubstitution) each independently selected from hydroxy, (1-10C)alkoxy, (1-4C)alkoxy-(1-4C)alkoxy, (1-4C)alkoxy-(1-4C)alkoxy-(1-4C)alkoxy, (1-4C)alkylcarbonyl, phosphoryl [-O-P(O)(OH)<sub>2</sub>, and mono- and di-(1-4C)alkoxy derivatives thereof], phosphiryl [-O-P(OH)<sub>2</sub> and mono- and di-(1-4C)alkoxy derivatives thereof], and amino; and/or optionally substituted by one group selected from carboxy, phosphonate [phosphono, -P(O)(OH)<sub>2</sub>, and mono- and di-(1-4C)alkoxy derivatives thereof], phosphinate [-P(OH)<sub>2</sub> and mono- and di-(1-4C)alkoxy derivatives thereof], cyano, halo, trifluoromethyl, (1-4C)alkoxycarbonyl, (1-4C)alkoxy-(1-4C)alkoxycarbonyl, (1-4C)alkoxy-(1-4C)alkoxy-(1-4C)alkoxycarbonyl, (1-4C)alkylamino, di((1-4C)alkyl)amino, (1-6C)alkanoylamino-, (1-4C)alkoxycarbonylamino-, N-(1-4C)alkyl-N-(1-6C)alkanoylamino-, -C(=W)NR<sub>v</sub>R<sub>w</sub> [wherein W is O or S, R<sub>v</sub> and R<sub>w</sub> are independently H, or (1-4C)alkyl and wherein R<sub>v</sub> and R<sub>w</sub> taken together with the amide or thioamide nitrogen to which they are attached can form a 5-7 membered ring optionally with an additional heteroatom selected from N, O, S(O)<sub>n</sub> in place of 1 carbon atom of the so formed ring; wherein when said ring is a piperazine ring, the ring may be optionally substituted on the additional nitrogen by a group selected from (1-4C)alkyl, (3-6C)cycloalkyl, (1-4C)alkanoyl, -COO(1-4C)alkyl, -S(O)<sub>n</sub>(1-4C)alkyl (wherein n = 1 or 2), -COOAR<sub>1</sub>, -CS(1-4C)alkyl and -C(=S)O(1-4C)alkyl], (=NOR<sub>v</sub>) wherein R<sub>v</sub> is as hereinbefore defined, (1-4C)alkylS(O)<sub>p</sub>NH-, (1-4C)alkylS(O)<sub>p</sub>-((1-4C)alkyl)N-, fluoro(1-4C)alkylS(O)<sub>p</sub>NH-,

fluoro(1-4C)alkylS(O)<sub>p</sub>((1-4C)alkyl)N-, (1-4C)alkylS(O)<sub>q</sub>-, CY1, CY2, AR1, AR2, AR3, AR1-O-, AR2-O-, AR3-O-, AR1-S(O)<sub>q</sub>-, AR2-S(O)<sub>q</sub>-, AR3-S(O)<sub>q</sub>-, AR1-NH-, AR2-NH-, AR3-NH- (p is 1 or 2 and q is 0, 1 or 2), and also AR2a, AR2b, AR3a and AR3b versions of AR2 and AR3 containing groups}; wherein any (1-4C)alkyl, (1-4C)alkanoyl and (3-

5 6C)cycloalkyl present in any substituent on R<sub>1a3</sub> may itself be substituted by one or two groups independently selected from cyano, hydroxy, halo, amino, (1-4C)alkylamino and di(1-4C)alkylamino, provided that such a substituent is not on a carbon adjacent to a heteroatom atom if present;

R<sub>1a4</sub>: R<sub>14</sub>C(O)O(1-6C)alkyl- wherein R<sub>14</sub> is AR1, AR2, AR2a, AR2b, (1-4C)alkylamino, benzyloxy-(1-4C)alkyl or (1-10C)alkyl {optionally substituted as defined for (R<sub>1a3</sub>)};

R<sub>1a5</sub>: F, Cl, hydroxy, mercapto, (1-4C)alkylS(O)<sub>p</sub>- (p = 0, 1 or 2), -NR<sub>7</sub>R<sub>8</sub> (wherein R<sub>7</sub> and R<sub>8</sub> are as hereinbefore defined) or -OR<sub>10</sub> (where R<sub>10</sub> is as hereinbefore defined); m is 0, 1 or 2;

R<sub>21</sub> is selected from hydrogen, methyl [optionally substituted with cyano, trifluoromethyl, -C=WNR<sub>v</sub>R<sub>w</sub> (where W, R<sub>v</sub> and R<sub>w</sub> are as hereinbefore defined for R<sub>1a3</sub>), (1-4C)alkoxycarbonyl, (1-4C)alkoxy-(1-4C)alkoxycarbonyl, (1-4C)alkoxy-(1-4C)alkoxy-(1-4C)alkoxycarbonyl, CY1, CY2, AR1, AR2, AR2a, AR2b (not linked through nitrogen) or AR3], (2-10C)alkyl [optionally substituted other than on a carbon attached to the HET-3 ring nitrogen with one or two groups independently selected from the optional substituents defined for R<sub>1a3</sub>] and R<sub>14</sub>C(O)O(2-6C)alkyl-, wherein R<sub>14</sub> is as defined hereinbefore for R<sub>1a4</sub> and wherein R<sub>14</sub>C(O)O group is attached to a carbon other than the carbon attached to the HET-3 ring nitrogen;

R<sub>22</sub> is cyano, -COR<sub>12</sub>, -COOR<sub>12</sub>, -CONHR<sub>12</sub>, -CON(R<sub>12</sub>)(R<sub>13</sub>), -SO<sub>2</sub>R<sub>12</sub> (provided that R<sub>12</sub> is not hydrogen), -SO<sub>2</sub>NHR<sub>12</sub>, -SO<sub>2</sub>N(R<sub>12</sub>)(R<sub>13</sub>) or NO<sub>2</sub>, wherein R<sub>12</sub> and R<sub>13</sub> are as defined hereinbelow;

R<sub>12</sub> and R<sub>13</sub> are independently selected from hydrogen, phenyl (optionally substituted with one or more substituents selected from halogen, (1-4C)alkyl and (1-4C)alkyl substituted with one, two, three or more halogen atoms) and (1-4C)alkyl (optionally substituted with one, two, three or more halogen atoms), or for any N(R<sub>12</sub>)(R<sub>13</sub>) group, R<sub>12</sub> and R<sub>13</sub> may be taken together with the nitrogen to which they are attached to form a 5-7 membered ring optionally with an additional heteroatom selected from N, O, S(O)<sub>n</sub> in place of 1 carbon atom of the so formed ring; wherein the ring may be optionally substituted by one or two groups independently selected from (1-4C)alkyl (optionally substituted on a carbon not adjacent to



- the nitrogen by cyano, hydroxy or halo), (3-6C)cycloalkyl, (1-4C)alkanoyl, -COO(1-4C)alkyl, S(O)<sub>n</sub>(1-4C)alkyl (wherein n = 1 or 2), AR1, AR2, , -C=OAR1, -C=OAR2, -COOAR1, -CS(1-4C)alkyl, -C(=S)O(1-4C)alkyl, -C(=W)NR<sub>v</sub>R<sub>w</sub> [wherein W is O or S, R<sub>v</sub> and R<sub>w</sub> are independently H, or (1-4C)alkyl ], -S(O)<sub>p</sub>AR1 and -S(O)<sub>p</sub>AR2; wherein any (1-4C)alkyl
- 5 chain may be optionally substituted by (1-4C)alkyl, cyano, hydroxy or halo; p = 0, 1 or 2;
- AR1** is an optionally substituted phenyl or optionally substituted naphthyl;
- AR2** is an optionally substituted 5- or 6-membered, fully unsaturated (i.e with the maximum degree of unsaturation) monocyclic heteroaryl ring containing up to four heteroatoms independently selected from O, N and S (but not containing any O-O, O-S or S-S bonds), and
- 10 linked via a ring carbon atom, or a ring nitrogen atom if the ring is not thereby quaternised;
- AR2a** is a partially hydrogenated version of AR2 (i.e. AR2 systems retaining some, but not the full, degree of unsaturation), linked via a ring carbon atom or linked via a ring nitrogen atom if the ring is not thereby quaternised;
- AR2b** is a fully hydrogenated version of AR2 (i.e. AR2 systems having no unsaturation),
- 15 linked via a ring carbon atom or linked via a ring nitrogen atom;
- AR3** is an optionally substituted 8-, 9- or 10-membered, fully unsaturated (i.e with the maximum degree of unsaturation) bicyclic heteroaryl ring containing up to four heteroatoms independently selected from O, N and S (but not containing any O-O, O-S or S-S bonds), and linked via a ring carbon atom in either of the rings comprising the bicyclic system;
- 20 **AR3a** is a partially hydrogenated version of AR3 (i.e. AR3 systems retaining some, but not the full, degree of unsaturation), linked via a ring carbon atom, or linked via a ring nitrogen atom if the ring is not thereby quaternised, in either of the rings comprising the bicyclic system;
- AR3b** is a fully hydrogenated version of AR3 (i.e. AR3 systems having no unsaturation),
- 25 linked via a ring carbon atom, or linked via a ring nitrogen atom, in either of the rings comprising the bicyclic system;
- AR4** is an optionally substituted 13- or 14-membered, fully unsaturated (i.e with the maximum degree of unsaturation) tricyclic heteroaryl ring containing up to four heteroatoms independently selected from O, N and S (but not containing any O-O, O-S or S-S bonds), and
- 30 linked via a ring carbon atom in any of the rings comprising the tricyclic system;
- AR4a** is a partially hydrogenated version of AR4 (i.e. AR4 systems retaining some, but not the full, degree of unsaturation), linked via a ring carbon atom, or linked via a ring nitrogen atom if the ring is not thereby quaternised, in any of the rings comprising the tricyclic system;

CY1 is an optionally substituted cyclobutyl, cyclopentyl or cyclohexyl ring;

CY2 is an optionally substituted cyclopentenyl or cyclohexenyl ring;

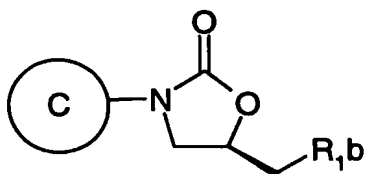
wherein; optional substituents on AR1, AR2, AR2a, AR2b, AR3, AR3a, AR3b, AR4, AR4a, CY1 and CY2 are (on an available carbon atom) up to three substituents independently

- 5 selected from (1-4C)alkyl {optionally substituted by substituents selected independently from hydroxy, trifluoromethyl, (1-4C)alkyl S(O)<sub>q</sub>- (q is 0, 1 or 2), (1-4C)alkoxy, (1-4C)alkoxycarbonyl, cyano, nitro, (1-4C)alkanoylamino, -CONR<sub>v</sub>R<sub>w</sub> or -NR<sub>v</sub>R<sub>w</sub>}, trifluoromethyl, hydroxy, halo, nitro, cyano, thiol, (1-4C)alkoxy, (1-4C)alkanoyloxy, dimethylaminomethyleneaminocarbonyl, di(N-(1-4C)alkyl)aminomethylimino, carboxy, 10 (1-4C)alkoxycarbonyl, (1-4C)alkanoyl, (1-4C)alkylSO<sub>2</sub>amino, (2-4C)alkenyl {optionally substituted by carboxy or (1-4C)alkoxycarbonyl}, (2-4C)alkynyl, (1-4C)alkanoylamino, oxo (=O), thioxo (=S), (1-4C)alkanoylamino {the (1-4C)alkanoyl group being optionally substituted by hydroxy}, (1-4C)alkyl S(O)<sub>q</sub>- (q is 0, 1 or 2) {the (1-4C)alkyl group being optionally substituted by one or more groups independently selected from cyano, hydroxy and 15 (1-4C)alkoxy}, -CONR<sub>v</sub>R<sub>w</sub> or -NR<sub>v</sub>R<sub>w</sub> [wherein R<sub>v</sub> is hydrogen or (1-4C)alkyl; R<sub>w</sub> is hydrogen or (1-4C)alkyl];

and further optional substituents on AR1, AR2, AR2a, AR2b, AR3, AR3a, AR3b, AR4, AR4a, CY1 and CY2 (on an available carbon atom), and also on alkyl groups (unless indicated otherwise) are up to three substituents independently selected from

- 20 trifluoromethoxy, benzoylamino, benzoyl, phenyl {optionally substituted by up to three substituents independently selected from halo, (1-4C)alkoxy or cyano}, furan, pyrrole, pyrazole, imidazole, triazole, pyrimidine, pyridazine, pyridine, isoxazole, oxazole, isothiazole, thiazole, thiophene, hydroxyimino(1-4C)alkyl, (1-4C)alkoxyimino(1-4C)alkyl, halo-(1-4C)alkyl, (1-4C)alkanesulfonamido, -SO<sub>2</sub>NR<sub>v</sub>R<sub>w</sub> [wherein R<sub>v</sub> is hydrogen or (1-4C)alkyl; 25 R<sub>w</sub> is hydrogen or (1-4C)alkyl]; and optional substituents on AR2, AR2a, AR2b, AR3, AR3a, AR3b, AR4 and AR4a are (on an available nitrogen atom, where such substitution does not result in quaternization) (1-4C)alkyl, (1-4C)alkanoyl {wherein the (1-4C)alkyl and (1-4C)alkanoyl groups are optionally substituted by (preferably one) substituents independently selected from cyano, 30 hydroxy, nitro, trifluoromethyl, (1-4C)alkyl S(O)<sub>q</sub>- (q is 0, 1 or 2), (1-4C)alkoxy, (1-4C)alkoxycarbonyl, (1-4C)alkanoylamino, -CONR<sub>v</sub>R<sub>w</sub> or -NR<sub>v</sub>R<sub>w</sub> [wherein R<sub>v</sub> is hydrogen or (1-4C)alkyl; R<sub>w</sub> is hydrogen or (1-4C)alkyl]}, (2-4C)alkenyl, (2-4C)alkynyl, (1-4C)alkoxycarbonyl or oxo (to form an N-oxide).

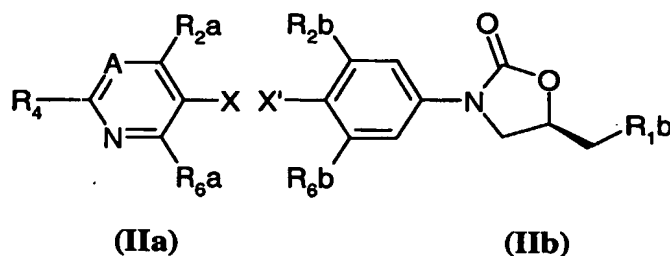
2. A compound of the formula (I) as claimed in claim 1, or a pharmaceutically-acceptable salt or an in-vivo hydrolysable ester thereof, wherein  $R_{1b}$  is  $-NHC(W)R_{24}$ .
3. A compound of the formula (I) as claimed in claim 1 or claim 2, or a  
5 pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein  $R_4$  is  $R_{4b}$ .
4. A compound of the formula (I) as claimed in any preceding claim or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein HET-3 is selected from HET3-T, HET3-V, HET3-Y and HET3-W.  
10
5. A compound of the formula (I) as claimed in any preceding claim, or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein HET-3 is selected from HET3-V and HET3-Y.
- 15 6. A compound of the formula (I) as claimed in any preceding claim, or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein  $R_{1a}$  is  $R_{1a3}$ .
7. A compound of the formula (I) as claimed in any preceding claim, or a  
20 pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein group C is group D.
8. A compound of the formula (I) as claimed in claims 1 to 6, or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein group C is group E.  
25
9. A compound of the formula (I) as claimed in claims 1 to 6, or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein W is O.
10. A compound of the formula (Ia), or a pharmaceutically-acceptable salt, or an in-vivo  
30 hydrolysable ester thereof, wherein groups C and  $R_{1b}$  have meanings as stated in any one of the preceding claims.



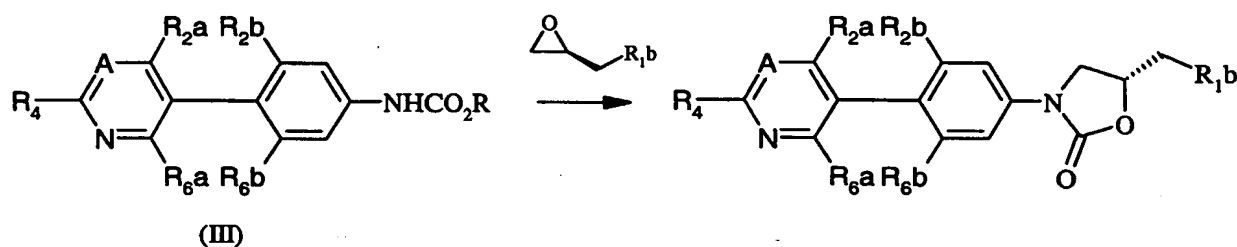
(Ia)

- 5 11. A pro-drug of a compound as claimed in any one of the previous claims.
- 12 A method for producing an antibacterial effect in a warm blooded animal which comprises administering to said animal an effective amount of a compound of the invention as claimed in any one of claims 1 to 10, or a pharmaceutically-acceptable salt, or in-vivo hydrolysable ester thereof.
- 10
13. A compound of the invention as claimed in any one of claims 1 to 10, or a pharmaceutically-acceptable salt, or in-vivo hydrolysable ester thereof, for use as a medicament.
- 15
14. The use of a compound of the invention as claimed in any one of claims 1 to 10, or a pharmaceutically-acceptable salt, or in-vivo hydrolysable ester thereof, in the manufacture of a medicament for use in the production of an antibacterial effect in a warm blooded animal.
- 20 15. A pharmaceutical composition which comprises a compound of the invention as claimed in any one of claims 1 to 10, or a pharmaceutically-acceptable salt or an in-vivo hydrolysable ester thereof, and a pharmaceutically-acceptable diluent or carrier.
16. A process for the preparation of a compound of formula (I) as claimed in claim 1 or pharmaceutically acceptable salts or in-vivo hydrolysable esters thereof, which process comprises one of processes (a) to (f); and thereafter if necessary:
- 25
- i) removing any protecting groups;
  - ii) forming a pro-drug (for example an in-vivo hydrolysable ester); and/or
  - iii) forming a pharmaceutically-acceptable salt;
- 30 wherein said processes (a) to (f) are:

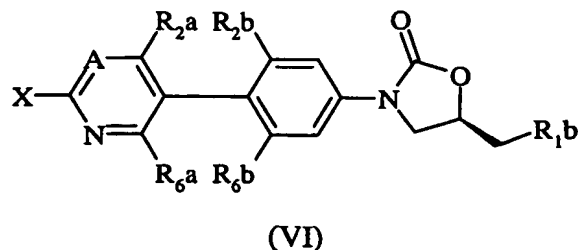
- a) by modifying a substituent in, or introducing a substituent into another compound of the invention by using standard chemistry;
- b) by reaction of a molecule of a compound of formula (IIa) [wherein X is a leaving group useful in palladium coupling and in this instance A is either N or C-R<sub>3a</sub>] with a molecule of a compound of formula (IIb) (wherein X' is a leaving group useful in palladium coupling,) wherein X and X' are such that an aryl-aryl, heteroaryl-aryl, or heteroaryl-heteroaryl bond replaces the aryl-X (or heteroaryl-X) and aryl-X' (or heteroaryl-X') bonds;



- 10 and X and X' are chosen to be different lead to the desired cross-coupling products of formula (I);
- c) by reaction of a heterobiaryl derivative (III) carbamate [where A is either N or C-R<sub>3a</sub>] with an appropriately substituted oxirane to form an oxazolidinone ring;



- (d) by reaction of a compound of formula (VI) :

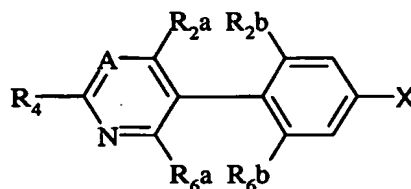


- 20 where X is a replaceable substituent and A is either N or CR<sub>3a</sub> with a compound of the formula (VII):



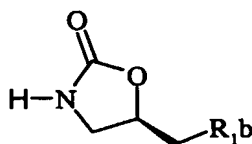
wherein T-X' is HET3 as herein above defined and X' is a replaceable C-linked substituent -  
 wherein the substituents X and X' are chosen to be complementary pairs of substituents  
 known in the art to be suitable for coupling reactions catalysed by transition metals; or  
 (d(i)) by reaction catalysed by transition metals such as palladium(0) of a compound of

5 formula (VIII):



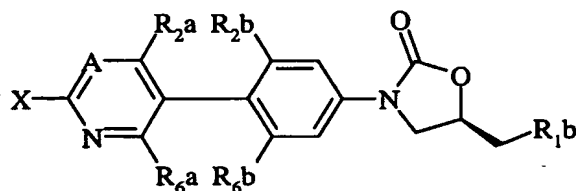
(VIII)

wherein X is a replaceable substituent and wherein in this instance A is either N or C-R3a with  
 a compound of the formula (IX):



(IX)

(d(ii)) by reaction of a compound of formula (X):



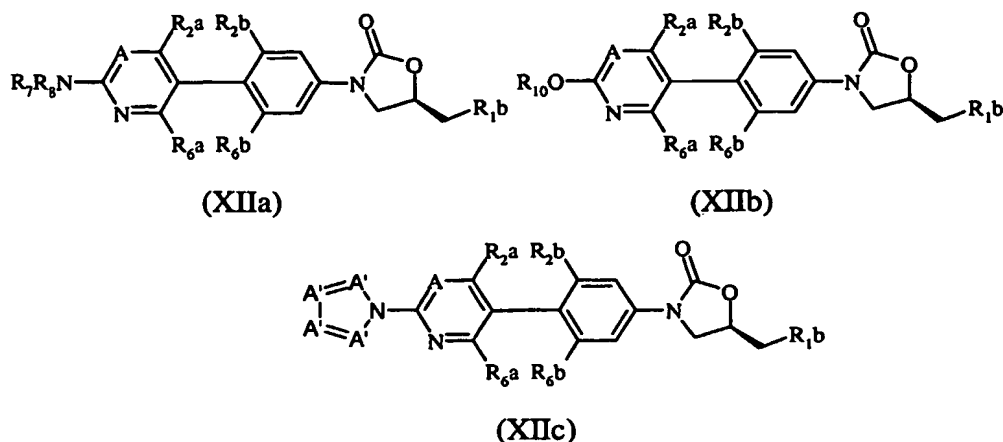
(X)

wherein X is a replaceable substituent and wherein in this instance A is either N or C-R3a  
 with a compound of the formula (XI):

T-H

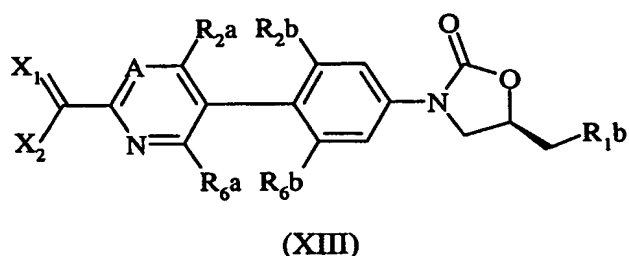
(XI)

20 wherein T-H is an amine R7R8NH, an alcohol R10OH, or an azole with an available ring-NH  
 group to give compounds (XIIa), (XIIb), or (XIIc) wherein in this instance A is nitrogen or C-  
 R3a and A' is nitrogen or carbon optionally substituted with one or more groups R1a.

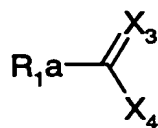


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(e) by reaction of a compound of formula (XIII):



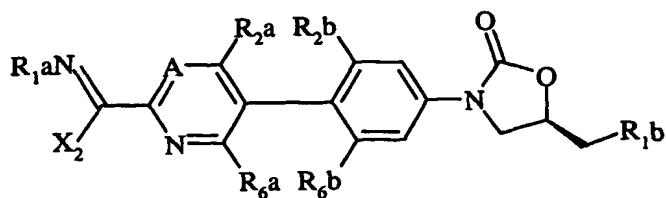
wherein  $X_1$  and  $X_2$  here are independently optionally substituted heteroatoms drawn in  
 10 combination from O, N, and S such that  $C(X_1)X_2$  constitutes a substituent that is a carboxylic  
 acid derivative substituent and wherein in this instance A is either N or C- $R_{3a}$  with a  
 compound of the formula (XIV) and  $X_3$  and  $X_4$  are independently optionally substituted  
 heteroatoms drawn in combination from O, N, and S:



15

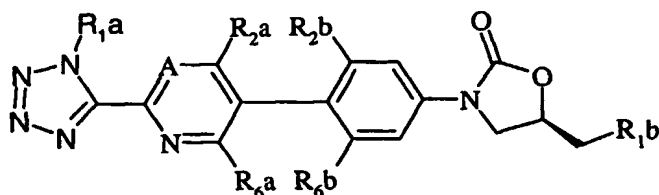
and wherein one of  $C(X_1)X_2$  and  $C(X_3)X_4$  constitutes an optionally substituted hydrazide,  
 thiohydrazide, or amidrazone, hydroximidate, or hydroxamidine and the other one of  $C(X_1)X_2$   
 and  $C(X_3)X_4$  constitutes an optionally substituted acylating, thioacylating, or imidoylating  
 agent such that  $C(X_1)X_2$  and  $C(X_3)X_4$  may be condensed together to form a 1,2,4-heteroatom  
 20 5-membered heterocycle containing 3 heteroatoms drawn in combination from O, N, and S,  
 for instance thiadiazole; or

(e (i)) by reaction of a compound of formula (XV):



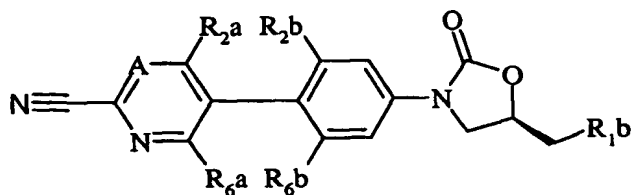
(XV)

wherein  $X_2$  is a displaceable group and wherein in this instance A is either N or C- $R_{3a}$  with a source of azide anion to give a tetrazole (XVI)



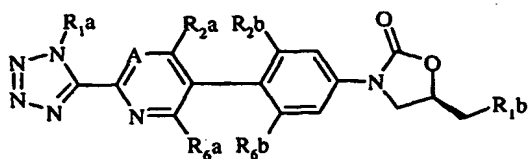
(XVI)

or where nitriles of formula (XVII)

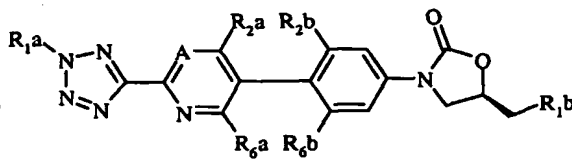


(XVII)

- 10 [wherein in this instance A is either N or C- $R_{3a}$ ] may be reacted directly with azides such as ammonium azide or trialkylstannylazides to give tetrazoles (XVI,  $R_{1a} = H$ ) that are subsequently alkylated with groups  $R_{1a} \neq H$  to give tetrazoles (XVIIIa) and (XVIIIb) or;



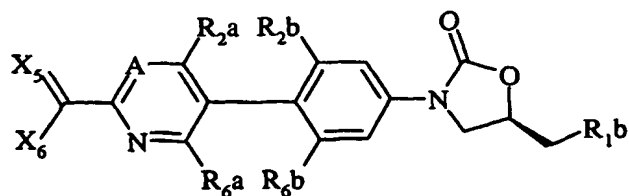
(XVIIIa)



(XVIIIb)

15

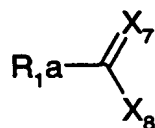
- (f) by reaction of a compound of formula (XIX):



(XIX)



[wherein in this instance A is either N or C-R<sub>3a</sub>] with a compound of the formula (XX):



(XX)

wherein one of C(X<sub>5</sub>)X<sub>6</sub> and C(X<sub>7</sub>)X<sub>8</sub> constitutes an optionally substituted alpha-(leaving-  
5 group-substituted)ketone, wherein the leaving group is for example a halo-group or an (alkyl  
or aryl)-sulfonyloxy-group, and the other one of C(X<sub>5</sub>)X<sub>6</sub> and C(X<sub>7</sub>)X<sub>8</sub> constitutes an  
optionally substituted amide, thioamide, or amidine, such that C(X<sub>5</sub>)X<sub>6</sub> and C(X<sub>7</sub>)X<sub>8</sub> are  
groups that may be condensed together to form a 1,3-heteroatom 5-membered heterocycle  
containing 2 heteroatoms drawn in combination from O, N, and S.